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Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources.

Rulemaking 14-10-003
(Filed October 2, 2014)

COMMENTS OF THE OFFICE OF RATEPAYER ADVOCATES ON ASSIGNED COMMISSIONER'S RULING INTRODUCING A DRAFT REGULATORY INCENTIVE PROPOSAL FOR DISCUSSION AND COMMENT

DANIEL BUCH
Analyst

Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Tel. (415) 703-2292
Email: Daniel.Buch@cpuc.ca.gov

JAMES M. RALPH
Attorney

Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Tel. (415) 703-4673
Email: James.Ralph@cpuc.ca.gov

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I. INTRODUCTION

The Office of Ratepayer Advocates (ORA) respectfully submits these comments pursuant to the *Assigned Commissioner's Ruling Introducing a Draft Regulatory Incentives Proposal for Discussion and Comment* (ACR) issued on April 4, 2016, and *E-Mail Ruling Extending Deadline to Submit Comments to April 4, 2016 Ruling*, issued on April 28, 2016. The ACR seeks party comment on a proposed utility shareholder incentive mechanism to encourage the deployment of Distributed Energy Resources (DERs), including suggestions for modification and alternative proposals. The ACR also poses questions to which parties are invited to respond.

In the discussion below, ORA provides general comments and responds to several of the questions in the ACR, making the following recommendations:

- The proposed pilot aligns utility shareholder incentives with state goals and may support increased deployment of DERs to meet distribution grid needs;
- The Commission should make sufficient resources available to verify distribution upgrade needs and costs;
- The Commission should clarify the sequencing of and relationship between DER pilot projects and requests for distribution infrastructure upgrades through General Rate Case (GRC) proceedings;
- The Commission should align ratepayer interests with utility and DER provider interests by clarifying that any DER contracts signed as a result of the pilot should have a pay-for-performance basis, with DER providers and shareholder incentives paid out over time based on verified performance characteristics;
- The Commission should modify the pilot proposal to address ratepayer protections, and safety and reliability impacts in the event of DER non-performance;
- The Commission should set limits on the length of time the pilot will run and the maximum allowable budget for each utility;

- The Commission should use the pilots to inform future program planning and designs by ordering a comprehensive assessment of the pilot by an independent third party;
- The Commission should continue to focus on efforts to make distribution systems needs and DER benefits more transparent; and
- The Commission should clarify the implications of this pilot on other proceedings and programs, including the implications of pilot projects on energy savings, goals, and cost allocation and accounting.

II. DISCUSSION

The ACR proposes a pilot to offer utility shareholder incentives for DERs that defer or displace distribution system upgrades in order to "harmonize the utility's financial objectives with the Commission's desire to foster the cost-effective deployment of DERs."[1] The ACR bases the proposed pilot on a discussion of the current sources of utility shareholder value and the financial disincentive that utilities face when procuring DERs that defer or displace distribution infrastructure, noting that procurement is a "pass through" in rates where the utility earns no rate of return while investments in distribution infrastructure do.[2] The proposed shareholder incentive would instead motivate utilities to "affirmatively seek opportunities to deploy DERs in the pursuit of their own shareholders' interests."[3]

The ACR notes the "utility deployment of cost-effective DERs should not come at the expense of ratepayers"[4] and envisions products of the Distribution Resource Planning (DRP) proceeding[5] such as the Integrated Capacity Analysis (ICA) and the Locational

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[1] ACR, p. 3.

[2] Id.

[3] Id. at p. 8.

[4] Id. at p. 8.

[5] R.14-08-013

Net Benefits Analysis (LNBA) ultimately enabling objective determinations of system needs and opportunities, and forming the basis of DER procurement approvals.[6] In the interim while the ICA and LNBA are still under development, the ACR sets a cost-effectiveness threshold for the pilot where the cost of the DER procurement plus the utility incentive must be less costly than the avoided or deferred utility investment.

In order to determine whether the cost-effectiveness threshold has been met and DER deployment is reasonable, the ACR proposes an interim process for review and approval of incentive-eligible projects. The process begins with utility identification of potential projects, followed by consideration by a newly constituted Distribution Planning Review Group (DPRG), modeled on the existing Procurement Review Group (PRG), to "describe and discuss the proposed DER procurement."[7] A utility would then file a Tier 3 advice letter requesting approval of the DER procurement process, hold a public workshop, and upon Commission approval procure the DER solution with competitive solicitations being the "preferred procurement vehicle."[8] Finally, the utility would submit the project for Commission approval via an application, with the utility "authorized to record the approved shareholder incentive in a balancing account at the same time as payments were made to the DER provider."[9]

A. The proposed pilot aligns utility shareholder incentives with state goals and may support increased deployment of DERs to meet distribution grid needs

As the ACR notes:

> a truly successful model for future distribution infrastructure planning and DER deployment…cannot reasonably proceed without acknowledging and

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[6] Id. at p. 11.

[7] Id.

[8] Id. at p. 12.

[9] Id.

> attempting to address the conflict between the Commission's policy objectives and the utilities' financial imperatives.[10]

Under the current regulatory framework, utilities earn a rate of return on infrastructure upgrades but not on DER deployments that would defer or displace such upgrades. The ACR finds that the current framework results in a disincentive to deploy DER solutions, which works at cross-purposes with state energy goals, such as those articulated in California's Clean Energy and Pollution Reduction Act of 2015, which call for increased reliance on DERs including renewable energy and energy efficiency resources to meet the state's climate and energy policy goals.[11]

If successful, the proposed pilot could help to cost-effectively meet future distribution grid needs and address challenges in the integration of distributed renewable resources. From the utility management perspective, the pilot could contribute to a more favorable review of DERs when a distribution system need is identified and the utility is faced with a range of options to meet that need.

B. The Commission should make sufficient resources available for verification of distribution upgrade need assessments and costs

The ACR proposes that utilities will be the primary entity responsible for identifying opportunities for DER deployment, at least in the short-term until the LBNA and ICA are developed in the DRP proceeding. In the absence of those more transparent methods of distribution need assessment, the ACR proposes a new stakeholder review group, the DPRG, to review utility proposals, followed by an advice letter and workshop detailing the proposed location and system need with cost estimates for traditional upgrades available on a confidential basis. The cost estimates would be the basis of cost-effectiveness of the DER deployment, with a cost-effectiveness threshold met if DER costs plus incentive costs are less than the cost estimate of the traditional upgrade.

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[10] Id. at p. 3.

[11] Senate Bill 350, chaptered October 7, 2015.

As the ACR notes, counterfactual determinations ("what would have happened otherwise") are at the heart of the proposed pilot.[12] These determinations are notoriously difficult to make with accuracy and are often subject to considerable controversy.[13] While the ACR notes that the incentive itself would not be calculated based on a counterfactual, both the distribution system need assessment and the cost-effectiveness threshold are dependent on counterfactual scenarios and, therefore remain at the heart of the pilot as a whole. This is unavoidable. The counterfactual nature of the pilot leads to a series of questions that parties and the Commission will ultimately be required to confront such as whether the distribution need assessment is accurate and properly prioritized and whether the cost estimates for traditional upgrades are sound.

Currently, questions of need and cost estimation in distribution system upgrades are the subject of formal Commission decision-making through GRCs. The ACR would instead move this function to the DPRG, followed by the advice letter process. While the process proposed in the ACR is open to substantial stakeholder input, the proposal lacks assurance that the parties charged with vetting utility need and cost assessments have sufficient technical expertise and resources to carry out this function. PRGs, which the DPRG is modeled on, are composed of non-financially interested parties and their participation does not qualify for intervenor compensation, limiting participation.[14] Additionally, PRGs generally include an Independent Evaluator (IE) contracted by the utility to provide an independent technical review of utility evaluations.

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[12] ACR, p. 8

[13] For example, the Commission continues to grapple with the controversies surrounding the energy efficiency Risk Reward Incentive Mechanism (R.09-01-019) that was in place during the 2006-2008 energy efficiency program cycle. The disputes in that proceeding revolve in large part around whether efficiency upgrades would have happened in the absence of utility intervention and how much benefit the utility-induced efficiency upgrades produced compared to what would have happened otherwise.

[14] As an example, ORA is the only non-financially interested party to have participated in PRG meetings related to RPS procurement in calendar year 2016.

In order to support more robust review and greater participation, the Commission should establish mechanisms to encourage greater stakeholder involvement in the DPRG and should require utilities to contract an IE in order to independently verify utility assessments of distribution system need and cost.

C. The Commission should clarify the sequencing of and relationship between DER pilot projects and requests for distribution infrastructure upgrades through GRC proceedings

The ACR proposes that pilot projects will be submitted to the Commission for approval via an application. If approved, the utility would record shareholder incentive payments in a balancing account at the same time payments are made to the DER provider. Balancing account payments would be reviewed in a designated subsequent proceeding.[15] The ACR appears to contemplate a cost-recovery process similar to that used for Energy Resource Recovery Accounts (ERRA) when it refers to DER procurement as a "pass through in rates," with the modification of simultaneously booking the incentive payments to a balancing account. [16]

Currently, utility distribution projects are proposed and funded through GRCs in regular cycles. If a utility makes a proposed distribution upgrade, the investment goes into ratebase and earns a rate of return that is factored into future revenue requirements and rates. However, utilities retain discretion to defer upgrades until they are needed; any difference between the funding granted in a GRC for distribution upgrades and the cost of actual infrastructure deployments is retained as earnings. A dollar spent on infrastructure investments creates a revenue stream for future years; a dollar not spent on infrastructure investments provides a dollar available for shareholder returns in the current year. In terms of utility financial incentives, there is tension between prudent investment and deferral of capital projects.

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[15] ACR, p. 13.

[16] Id. at p. 3.

The ACR does not address the relationship between DER pilot projects and requests for distribution upgrades in GRC proceedings or the sequencing of such requests. Particularly concerning is the possibility that a utility would identify a distribution system need and request funds for distribution infrastructure that are granted in a GRC, and then subsequently initiate the pilot review and approval sequence, resulting in double-funding of the same distribution system upgrade need. Parties have already identified cases in which these double-funding requests are being made, raising the prospect of significant double-funding of future pilot projects.[17]

In order to address this concern, the Commission should clarify the relationship and sequencing of DER pilot projects and GRC requests for distribution upgrades. In order to avoid double-funding for the same distribution system needs, the Commission should require that DER pilot projects are excluded from GRC requests.

D. The Commission should align ratepayer interests with utility and DER provider interests by clarifying that any DER contracts signed as a result of the pilot should have a pay-for-performance basis, with DER providers and shareholder incentives paid out over time based on verified performance characteristics

The ACR proposes that when "a DER solution is chosen and approved, the utility would be authorized to record the approved shareholder incentive in a balancing account at the same time as payments were made to the DER provider."[18] This payment mechanism aligns the interests of the DER provider and the utility, linking the two parties' benefits from the DER deployment financially and temporally. Ratepayers; however, only benefit if the DER that is deployed actually is built and performs as contracted such that ratepayers avoid or defer the cost of a distribution upgrade.

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[17] See *Prepared Testimony of Eric Borden*, p. 6 in PG&E's most recent GRC, A.15-09-001, which identifies a request for funding of transformer upgrades at the same two distribution substations which are the subject of an energy storage applications aimed at distribution reliability.

[18] ACR, p. 13.

The allocation of the risk of non-performance is not currently specified in the ACR and different allocations of that risk will bear on whether parties ultimately benefit from DER deployments. The Commission should provide additional guidance on this issue rather than leave the allocation uncertain and leave the pilots vulnerable to contentious litigation *ex post facto* in the event of non-performance. ORA recommends that the Commission allocate risk such that all parties' interests are aligned by using pay-for-performance contracting. Other contracting methods, such as upfront payments, do not incentivize DER providers and utilities to ensure that the DER solution in fact performs as needed or specified.[19] Instead, the Commission should require that all pilot solicitations and contracts specify the basic performance criteria that will be used to judge the success of the DER deployment and tie DER provider payments and utility shareholder incentive payments to verified performance characteristics in specified increments of time.

E. The Commission should modify the pilot proposal to address ratepayer protections, and safety and reliability impacts in the event of DER non-performance

The risk of DER non-performance raises additional concerns related to accountability, safety, and system reliability. As noted above, ratepayers only benefit if DERs performance is sufficient to defer or displace distribution system upgrades. However, the losses to ratepayers in the event of DER non-performance depend on the allocation of the risk and the procedures and safeguards that determine the actions utilities will take if a DER does not perform. Ratepayers face a risk of double-payment for the same grid services if a distribution upgrade proves necessary due to DER non-performance. Requiring pay-for-performance contracts and transparent procedures to

[19] If utilities subsequently must make distribution upgrades due to non-performance of the DER solution but still receive shareholder incentives based on the non-performing DER's cost, they may in fact face a perverse incentive in which DER non-performance actually increases shareholder earnings through double payment, since they would earn a shareholder incentive on the DER and earn a rate of return on the distribution upgrade.

verify DER performance are an important step the Commission can take to limit the risk to ratepayers.

There are, however, additional risks that customers and others could face in the event of DER non-performance that the Commission should address, particularly those related to safety and reliability. The ACR implicitly assumes that DERs will perform and therefore is largely silent on the financial and operational safeguards needed to prevent negative safety and reliability outcomes should DERs fail to perform. If a DER is deployed in place of a distribution system upgrade, non-performance could lead to outcomes such as poor voltage regulation, overloaded circuits, and damaged distribution equipment. Avoiding such adverse outcomes will require substantial contingency planning and monitoring by the utility that specifies the actions the utility will take in the event of different types of non-performance, and the triggers for emergency intervention. DER contracts must specify who is liable in the event of non-performance leading to emergency measures and how those determinations will be made.

F. The Commission should set limits on the length of time the pilot will run and the maximum allowable budget for each utility

The ACR proposes the DER incentive program as a pilot that will function as an interim program offering for the deployment of cost-effective DERs, much of which may eventually be displaced by the Distribution Resource Planning (DRP) process. As the Commission has previously observed, pilots play a crucial role "by allowing the testing of innovative program designs and partnerships that may then enable the utilities to achieve" long-term goals.[20]

At the same time, pilots also require careful scrutiny and oversight in order to ensure they are effective in achieving their objectives before they are expanded and

[20] D.09-09-047, p. 47.

become permanent.[21] Therefore, the Commission should establish an explicit framework of time and budget to allow for a thorough review before considering any expansion. The ACR proposes a two year pilot period and a minimum of one project per utility every six months, which would ensure a minimum of 12 projects across utilities for the proposed pilot period.[22] ORA agrees with the ACR's limitation on the term of the pilot, which should allow parties and the Commission enough examples to draw conclusions about the pilot's effectiveness and lessons learned in order to make course corrections.

In a similar vein, the Commission should set a maximum budget for the shareholder incentives awarded for each utility in order to limit ratepayer exposure to the uncertainties of outcome that experimentation with a new utility business model necessarily entail.[23]

G. The Commission should use the pilots to inform future program planning and designs by ordering a comprehensive assessment of the pilot by an independent third party

The ACR is clear that the proposed pilot is part of the Commission's "walk, jog, run" approach in reconsidering the regulatory framework and business models for increasing DER integration in the distribution planning process.[24] As a part of that approach, the Commission should be actively seeking lessons learned when it embarks upon new program designs in order to refine initiatives that are broadly successful as well as to course correct when efforts do not perform as hoped. This pilot breaks new ground in several areas, and so the Commission and stakeholders would be well-served when considering future iterations if the lessons learned were systematically documented in a reliable fashion.

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[21] Id.

[22] ACR, p. 14.

[23] The maximum budget for the pilot would be a reasonable topic for discussion at the future workshops referenced in the ACR. Id.

[24] Id. at p. 2.

The Commission should order and fund Energy Division to oversee an independent comprehensive assessment of the pilot program at the end of its two year term. The evaluation should address the general success of the pilot and lessons learned as well as specific issues likely to inform future policymaking. These include:

- The effectiveness of the utilities in identifying the most cost-effective DER projects,
- The transparency and effectiveness of the DPRG review process in verifying system needs and deferred/displaced upgrade costs,
- The net cost savings accruing to ratepayers due to DER deployments, and
- The performance of DERs in deferring or displacing distribution system upgrades, including documentation of any distribution upgrades needed at DER deployment locations.

H. The Commission should continue to focus on efforts to make distribution systems needs and DER benefits more transparent

The pilot envisioned in the ACR outlines one promising path toward greater integration of DERs into California's energy system and should provide valuable information to inform these broader discussions. It is only one of several currents initiatives aimed at facilitating greater DER integration into distribution planning. The ACR envisions the LNBA and ICA eventually superseding the DPRG in terms of providing transparent distribution needs assessment and planning functions.[25] The Commission and the utilities should continue work diligently on the LNBA and ICA in order to broaden understanding of the opportunities for DER integration as well as their costs and benefits.

[25] ACR, p. 11.

I. The Commission should clarify the implications of this pilot on other proceedings and programs, including the implications of pilot projects on energy savings, goals, and cost allocation and accounting

Many of the DERs that would be eligible for participation in this pilot are already funded and regulated under different proceedings and programs at the Commission. These resources currently fit under varying regulatory frameworks, obligations, and funding streams such as Energy Efficiency (EE) proceeding, the Energy Savings Assistance Program (ESAP), the Self-Generation Incentive Program (SGIP), and Demand Response (DR) proceeding.[26] As a part of any decision, the Commission should clarify how this pilot will impact existing programs and structures. The ACR already clarifies that the pilot incentive mechanism would take precedence over other shareholder incentives such that DERs selected in the pilot would be ineligible for other shareholder incentives. ORA supports this position, but notes that the ACR is silent on other implications for related proceedings. These include whether pilot DERs would count towards energy savings and goals for individual resource proceedings and whether the pilot DERs would be eligible for ratepayer-funded incentive payments such as SGIP and utility-funded EE and DR programs. Additional areas for clarification include the source of funding and accounting for DER projects and whether the funds for specific DERs will come out of the relevant resource proceeding budgets or some other source. The Commission should clarify its intent in these areas in a future proposed decision.

III. ANSWERS TO QUESTIONS IN THE ASSIGNED COMMISSIONER'S RULING

1. Is the description of the source of utility shareholder value summarized above and discussed in the Appendices accurate? If not, why not?

[26] The Commission has ongoing proceedings in each of these area: R.13-11-005 (EE rulemaking), A.14-11-007 (ESA 2015-2017 applications); R.12-11-005 (SGIP rulemaking), and R.13-09-011 (DR rulemaking).

The basic source of shareholder value described in the ACR and appendices, return on equity (r) minus cost of equity (k), corresponds to standard financial models and is an appropriate basis for determining the shareholder incentive for the pilot. There is, however, some uncertainty around the specific estimates for return on equity (r) and cost of equity (k) used in the appendices, which depart from standard Commission practice.[27] The ACR contemplates establishing a method for determining k and the appropriate incentive rate in a future phase of the proceeding.[28] The choice of incentive rate would have rate impacts, so the Commission should defer determination of the exact incentive rate to a ratesetting phase of the proceeding.

2. Would an incentive program such as that described above achieve the objective of promoting the cost-effective deployment of DERs? If not, why not?

If successful, the proposed pilot could help to cost-effectively meet future distribution grid needs and address challenges in the integration of distributed renewable resources. From the utility management perspective, the pilot could contribute to a more favorable review of DERs when compared to infrastructure upgrades when a distribution system need is identified and the utility is faced with a range of options to meet that need. The pilot is only one of several currents initiatives aimed at facilitating greater DER integration. The ACR envisions the LNBA and ICA eventually superseding the DPRG in terms of providing transparent distribution needs assessment and planning functions.[29]

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[27] For example, Commission proceedings tend to use the Discount Dividend Model and the Capital Asset Pricing Model to derive the cost of equity, while the appendices use estimates from private investment research firms.

[28] ACR, p. 7.

[29] ACR, p. 11.

3. What alternative approaches should the Commission consider at this time?

No response at this time.

4. Is the proposed incentive, in the range of 3.5% grossed up for taxes, approximately correct?

See response to Question 1.

5. Are there other disincentives to the deployment of DERs that this proposal does not address that should be considered at the same time? If so, please explain.

See Section C on GRC funding and Section E on safety and reliability concerns in the discussion above. Two additional disincentives to DER deployment should be considered. First, even if the rate of return (r-k) on investments is roughly equal, the size of investments may vary considerably with traditional upgrades being more expensive. If utilities prefer to maximize total return rather, they may still be inclined to choose the more expensive distribution upgrade over DER deployment. Second, unless a utility is purchasing the DER outright, the utility will have less control over the deployment and functioning of the DER asset than it would over the alternative infrastructure asset. Depending on the grid need and the terms of a potential DER contract, this too may act as a disincentive to DER deployment.

6. Is the suggested process for identifying and approving DER projects that would generate an incentive reasonable and appropriate? How could the process be improved?

See Section B in the discussion above for recommendations on the project vetting process.

7. Is there need for a limit on the number of projects or the amount of dollars that utility could propose during this pilot program? If so, what should it be?

See Section F in the discussion above for recommendations on budget limitations.

8. Would participation in a DER solicitation by a utility affiliate require any changes to the Affiliate Transaction Rule, or any changes to the process for review and approval of proposed DER solutions?

No response at this time.

9. What would be the appropriate role of the IOUs themselves in the deployment of cost-effective DERs? Should direct IOU participation in DER deployment be encouraged, foreclosed, or allowed with certain caveats? Please fully explain your answer.

The utilities and their subsidiaries should not be eligible to be direct participants in the provision of DER services through this pilot. The pilot design is generally inconsistent with utility-owned DERs, since presumably utilities do not require an additional incentive for deferring or displacing distribution infrastructure upgrades if they are already capturing the profits from DER deployment. Utility direct provision could also undermine growth and innovation in the developing DER market.

IV. CONCLUSION

ORA recommends that the Commission adopt its recommendations herein.

Respectfully submitted,

/s/ JAMES M. RALPH

James M. Ralph

Attorney for the
Office of Ratepayer Advocates

California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Telephone: (415) 703-4673
Email: James.Ralph@cpuc.ca.gov

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